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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,955	03/26/2004	Robert C. Arnott	5752	9824
25280	7590	02/13/2008		
Legal Department (M-495) P.O. Box 1926 Spartanburg, SC 29304			EXAMINER MATZEK, MATTHEW D	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			02/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,955

Applicant(s)

ARNOTT, ROBERT C.

Examiner

MATTHEW D. MATZEK

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 21-31 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

Response to Amendment

1. The amendment dated 11/19/2007 has been fully considered and entered into the Record. Claims 1-20 have been cancelled. Claims 21-31 are currently active. Claim 21 has been amended to have the polymer finish consist of a combination of two urethane polymers. The previous rejection made in view of Golumbic has been withdrawn as the applied coating composition does not read on the amended polymer finish limitation.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 21, 23 and 25-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 5,981,407) in view of Bacon, JR. (US 2002/0192459 A1).

a. Matsumoto et al. teach a flame retardant fabric (Abstract) comprising a halogen containing polyester fiber (col. 2, lines 27-30). The halogen containing fiber may comprise a phosphorus compound such as tris(2,3-dichloropropyl) phosphate (col. 3, lines 15-17). The applied fabric is woven (Examples). Matsumoto et al. fail to teach the use of a protective film for the fabric.

b. Bacon, JR. discloses a coating consisting of soft and hard component polyurethanes. The coating may be applied to a variety of substrates including clothing [0072]. The soft polyurethane has an elongation ranging from 200 to 600% and the hard polyurethane an elongation of up to about 150% [0007-8]. The ratio of the soft component to the hard component ranges from about 9:1 to 3:2 [0012]. For enhanced weatherability it is preferred that all the components are substantially aliphatic [0032].

The polyurethanes may be synthesized from polyester polyols or polyether polyols [0036]. These teachings demonstrate that the preferred polyurethanes are aliphatic polyether polyurethanes and aliphatic polyester polyurethanes. The coating is preferably transparent [0006].

c. Since Matsumoto et al. and Bacon, JR. are from the same field of endeavor (i.e. protective fabrics), the purpose disclosed by Bacon, JR. would have been recognized in the pertinent art of Matsumoto et al.

d. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the invention of Matsumoto et al. with the motivation of providing the fabric with a flexible coating that is printable and stain resistant (abstract).

e. The coating's add-on weight percentage is a result-effective variable affecting the toughness and flexibility of the coated fabric. Consequently, absent a clear and convincing showing of unexpected results demonstrating the criticality of the claimed ratio, it would have been obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

f. Although neither Matsumoto et al. nor Bacon, JR. explicitly teach the claimed finish with a stiff hand or flammability, it is reasonable to presume that said properties are inherent to combined invention. Support for said presumption is found in the use of like materials (i.e. a blend of polyurethanes for imparting toughness and flame retardant cloth). The burden is upon Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ

594. In addition, the presently claimed properties of a finish with a stiff hand and flammability would obviously have been present one the combined invention is provided. Reliance upon inherency is not improper even though the rejection is based on Section 103 instead of Section 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80.

3. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US 5,981,407) in view of Bacon, JR. (US 2002/0192459 A1) as applied to claim 21 above, and further in view of Yilgör et al. (US 5,521,273).

Matsumoto et al. discloses the claimed invention except that woven fabrics instead of knitted or nonwoven fabrics, Yilgör et al. shows that knitted and nonwoven fabrics are equivalent structures known in the art (col. 5, lines 22-26). Therefore, because these materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute woven fabrics for nonwoven or knitted fabrics.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW D. MATZEK whose telephone number is (571)272-2423. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571.272.1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew D Matzek/
Examiner, Art Unit 1794

/Norca L. Torres-Velazquez/
Primary Examiner, Art Unit 1794